



Real-Time Probe Data Dashboard for Monitoring Detour Route during I-65 N Road Closure

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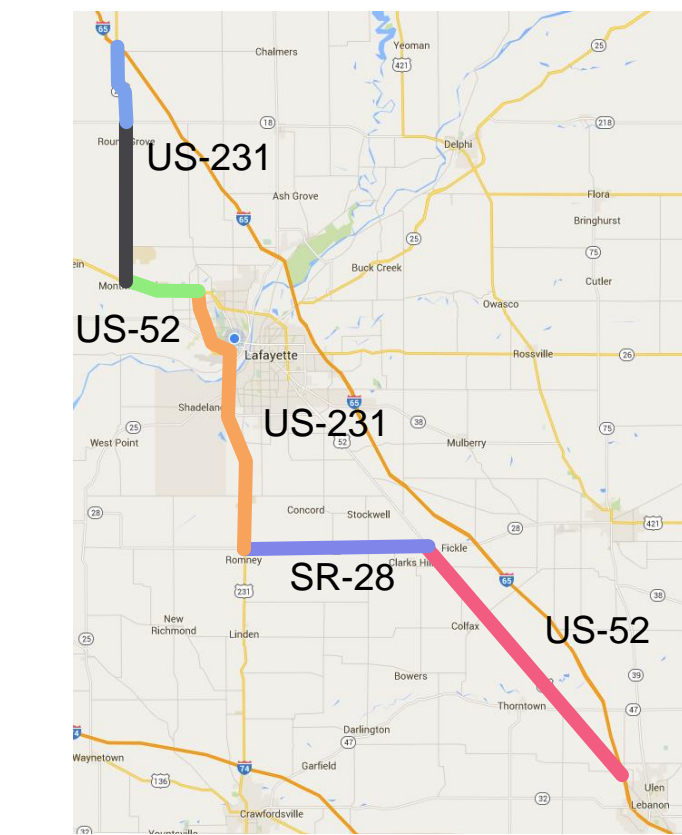
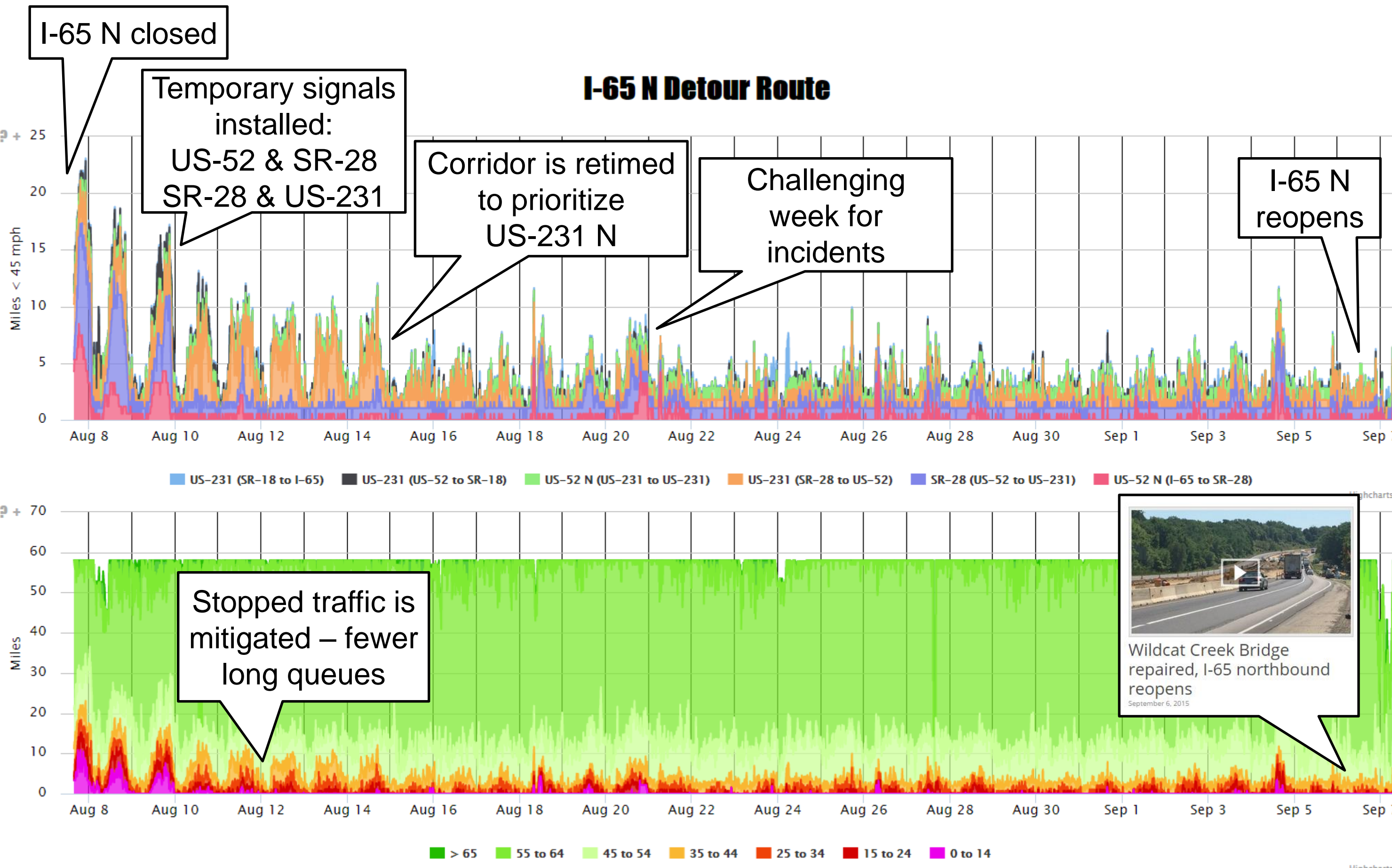
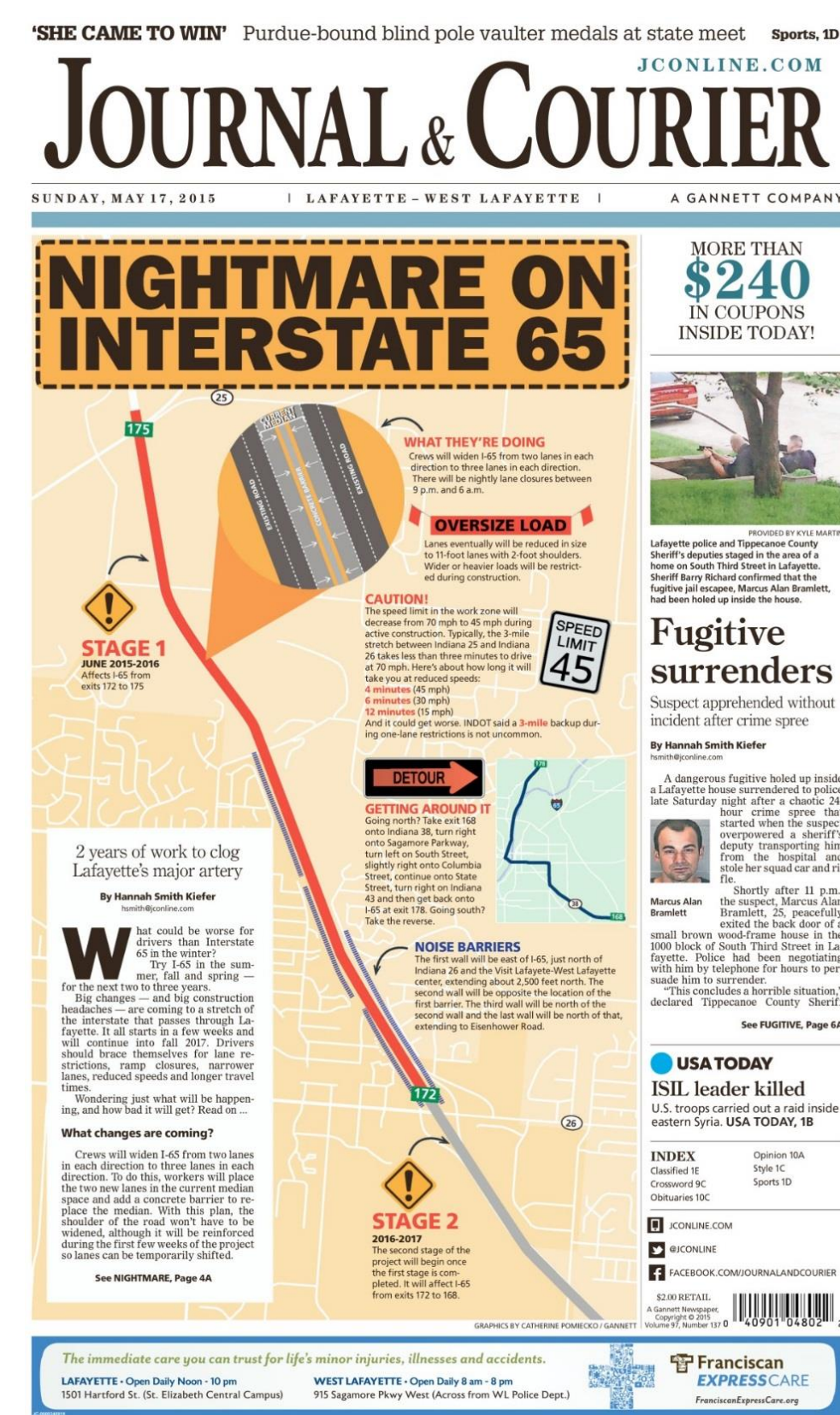
Abstract

On August 7, 2015, a 37 mile stretch of I-65 N from MM 141 to 178 was closed due to a structural evaluation of a bridge. Traffic was detoured onto US-52, SR-26, and US-231 before returning to the highway. In order to monitor delay and congestion on the detour route, a real-time dashboard was implemented in the style of the interstate Traffic Ticker. Throughout the detour, this website was used to monitor congestion in real time and measure the impact of mitigation actions. The improvement in travel can be seen from the addition of temporary signals, retiming of the US-231 corridor, and conversion of US-231 and SR-18 to a two-way stop.



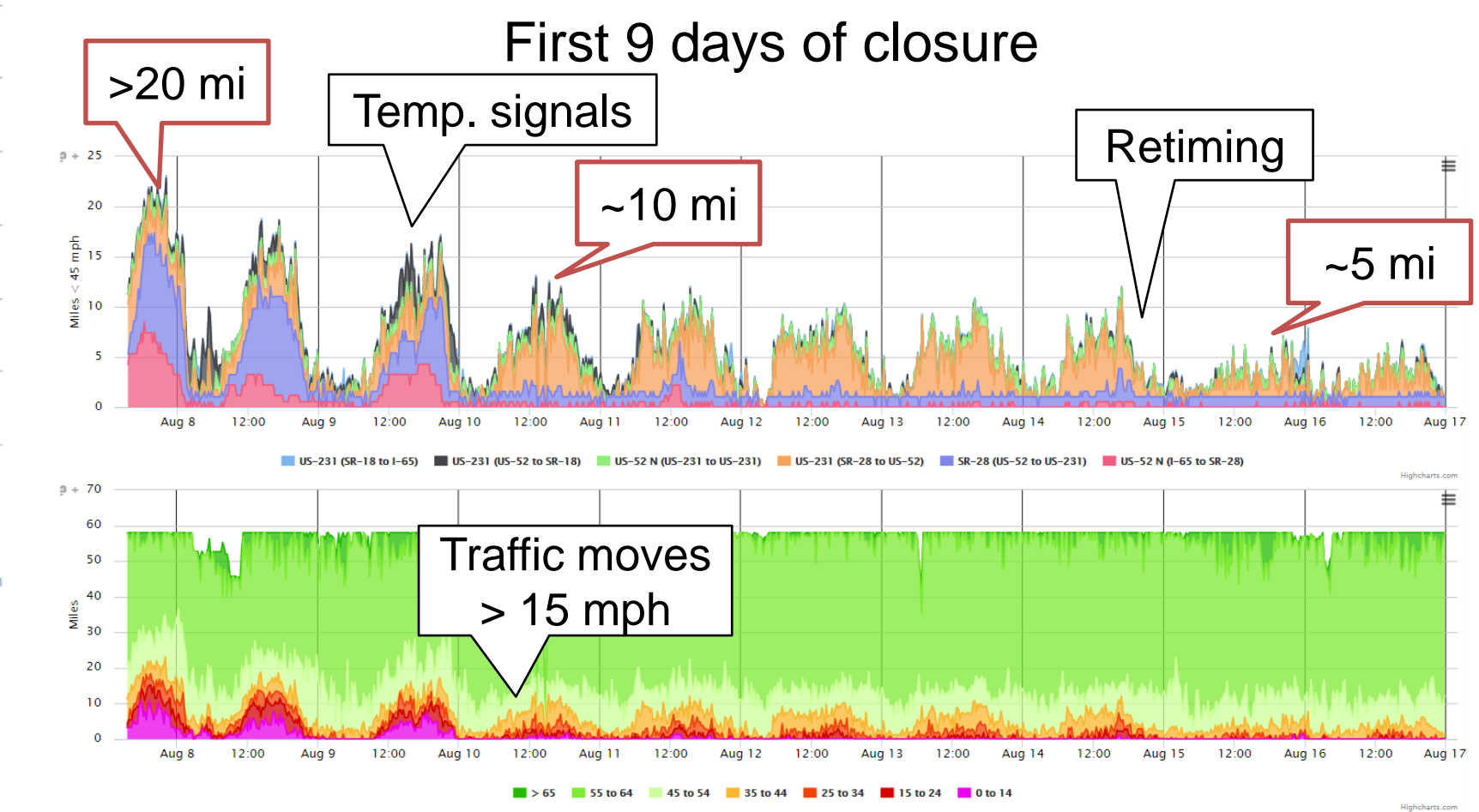
Congestion Profile on Detour Route from Aug. 7 to Sep. 7

Separating fact from fiction: Using data to tell the real story of the detour



Detour route segments, colored to match graph

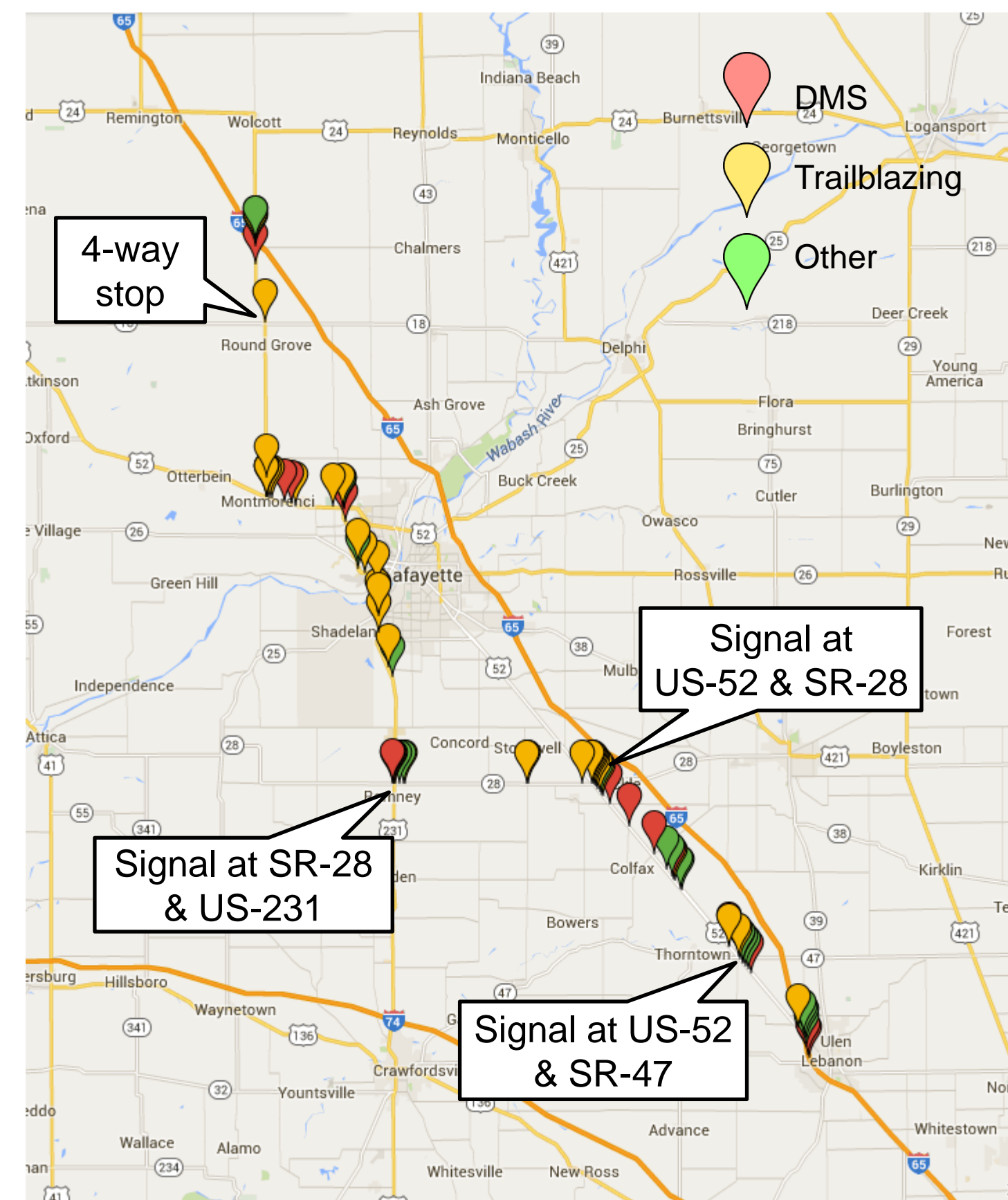
- Five phases of Detour Route Management
1. Identification of Diversion Route
 2. Trailblazing
 3. Temporary Signals and Flasher changes
 4. Optimization of Signal Timing
 5. Incident Management



Detour Route: Signs and Signals

The route of the detour is shown at right, with traffic diverting onto US-52 at Lebanon and following SR-28 to US-231 back to I-65 N.

- Temporary signals were installed at
 - US-52 and SR-28
 - SR-28 and US-231.
 - US-52 & SR 47
- The four-way stop at US-231 and SR-18 was also converted to a two-way stop
- The balloons mark the location of
 - 15 dynamic message signs (DMS)
 - 40 trailblazing signs, and
 - 19 others (traffic light warning signs, work zone warnings, etc.).



Signs and Signals



Coordination with Public Safety

Purdue University @IUPurdue Aug 18
UPDATE: US 52 is closed at SR 47 in Thorntown due to fatal crash. N bound traffic to divert at Lebanon at SR 32 W to US 231 N to Lafayette.

Purdue University @IUPurdue Aug 18
UPDATE: Closer to campus, SR 26 (at I-65) in Lafayette has also been reopened. #Purdue #BGR #BeSafe

Purdue University @IUPurdue Aug 18
UPDATE: US 52 is now open in both directions.

Purdue University @IUPurdue
UPDATE: US 52 is closed at SR 47 in Thorntown due to fatal crash. N bound traffic to divert at Lebanon at SR 32 W to US 231 N to Lafayette.

Change from red flasher to yellow

ISP changes SR-18 from 4-way to 2-way stop and 90 minutes later, queue is cleared.